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AUTHOR	Bell, Stephen
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ABSTRACT

This study compared the academic performance of community college students who transferred to the Faculty of Arts at York University in Ontario (Canada) to the performance of students with Ontario Academic Credit (OAC) backgrounds admitted to the same faculty between 1987 and 1992. The academic performance of 155 community college transfer students and 2,746 regularly admitted students with an OAC background was compared. It was found that community college students did as well, or better, academically than direct entry high school students. Community college transfer students did not proceed toward a degree at the same rate as direct entry students, however, taking approximately one-half a course less per year. Community college students were also more likely to be non-completers/drop-outs/stop-outs (40.7 percent compared to 25.3 percent), and were less likely to graduate (48.4 percent compared to 61.3 percent), compared to direct entry students. However, community college students awarded advanced standing were more likely to persist and graduate compared to community college students not awarded advanced standing. (Contains 11 references.) (MDM)

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ED 404 903

INSTITUTE FOR SOCIAL RESEARCH

THE COLLEGE-UNIVERSITY LINKAGE: AN EXAMINATION OF THE PERFORMANCE OF TRANSFER STUDENTS IN THE FACULTY OF ARTS AT YORK UNIVERSITY, 1987-1992

STEPHEN BELL

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The College-University Linkage: An Examination of the Performance of Transfer Students in the Faculty of Arts at York University, 1987-1992

by

Stephen Bell
Office of the Dean
Faculty of Arts, York University

January 1995

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Faculty of Arts, York University

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Institute for Social Research
York University
4700 Keele Street
North York, Ontario, Canada M3J 1P3

Telephone: (416) 736-5061; Fax (416) 736-5749

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The following is a working paper

ABSTRACT

This paper describes the various types of community college-university interaction that exists in the Province of Ontario and their growth over the past few years, and compares (over five years) the academic performance of a cohort of community college students (**GROUP 1**) admitted to the Faculty of Arts at York University to a cohort of high school students with Ontario Academic Credit (OAC) backgrounds (**GROUP 2**) admitted to the Faculty of Arts at York University in the fall of 1987.

The paper shows that the level of college-university interaction in Ontario universities has improved dramatically in the past five years and could now be characterized as robust. Fruitful collaboration exists at the institutional level, new arrangements for creative joint programming and sharing of facilities continue to emerge, and an improved regulatory environment in most universities (i.e. greater advanced standing credit being granted) is creating opportunities for a larger number of students to make the transition from community college to university.

An analysis of longitudinal data shows that community college students do as well academically or in some cases better academically (in two of the five years under study) compared to direct entry high school students, but do not proceed towards a degree at the same rate as direct entry high school students, taking approximately half a course (.5 FCE) less per year (except in Year 5). Community college students (GROUP 1) are more likely to be non-completers/drop-outs/stop-outs (40.7% compared to 25.3%), and are less likely to graduate (48.4 % compared to 61.3%) compared to direct entry high school students (GROUP 2). In addition, community college students awarded advanced standing are more likely to persist and graduate compared to community college students not awarded advanced standing.

RÉSUMÉ

Notre étude s'intéresse aux divers types d'interaction qui existent, en Ontario, entre les universités et les collèges communautaires et à l'évolution de celles-ci au cours des quelques dernières années. Notre étude compare, sur une période de cinq ans, la performance académique de deux groupes d'étudiants admis à la faculté des arts de l'université York en automne 1987: le premier groupe (Groupe 1) est formé d'étudiants issus de collèges communautaires tandis que le second groupe (Groupe 2) compte des étudiants d'école secondaire ayant suivi un programme de CPO.

Notre étude montre que, dans les cinq dernières années, le niveau d'interaction entre les collèges communautaires et les universités ontariennes s'est nettement amélioré et qu'il peut être même qualifié de solide. On note que les deux parties collaborent déjà au niveau institutionnel -et cela de façon de plus en plus fructueuse - et qu'elles prennent de plus en plus de dispositions qui vont dans le sens d'une élaboration conjointe de programmes ou d'un partage de locaux et autres installations. De plus l'amélioration des règlements dans la plupart des universités (par exemple, l'octroi de plus en plus fréquent de crédits d'équivalence) crée un environnement qui permet à un plus grand nombre d'étudiants de faire la transition du collège communautaire à l'université.

Une analyse des données montre que les étudiants provenant des collèges communautaires obtiennent d'aussi bons résultats - voire même de meilleurs résultats (c'est le cas, dans notre étude, de deux années sur cinq) - que les étudiants qui arrivent directement de l'école secondaire. Cependant, les étudiants des collèges obtiennent leur diplôme après une durée d'études plus longue car ils prennent, en moyenne, un demi-cours (.5 FCE) de moins par an (à l'exception de la cinquième année à l'étude). De plus, les étudiants des collèges (Groupe 1) ont plus tendance à abandonner ou à interrompre leurs études (40.7% contre 25.3% dans le groupe 2) et ils sont moins nombreux à obtenir leur diplôme (48.4% contre 61.3% dans le groupe 2). Par contre, les étudiants des collèges communautaires qui ont, à leur entrée à l'université, obtenu des crédits d'équivalence démontrent un comportement différent de celui des étudiants qui n'en ont pas obtenu : ils sont généralement plus persévérants et obtiennent plus souvent leur diplôme.

ACKNOWLEDGEMENTS

It would seem to most social science researchers that it would be an easy task to pull together the relevant data to compare the academic performance of students who were admitted to the Faculty of Arts at York University with different academic backgrounds, e.g. mature students, English as a Second Language (ESL) students, out-of-province students, international students, CEGEP students, and community college students. However, the present Student Record System (SRS) at York University was not devised with this type of social science research in mind and thus obtaining data, particularly longitudinal data, to compare the academic performance of different types of students is very difficult. For example, in order to compile the dataset for this project, data from 25 different sources were accessed, and since many data sources are archived as a result of the number of records contained in the "system", a large number of data-tapes had to be created. Therefore, I would like to acknowledge the special efforts of the Office of the Assistant-Vice-President (Management Information), especially Ms. Wendy Busby and Mr. Bill Bruce, for cooperating with the Dean of Arts office on this study and making available the staff time to pull together the dataset which involved an extensive amount of complicated SAS programming. For their efforts, I thank them. In addition I would also like to thank Professor Paul Anisef of the Department of Sociology, Glen Jones of the Ontario Institute for Studies in Education and colleagues in the Dean's Office for taking the time to critique various drafts.

Stephen Bell
Office of the Dean of Arts
January, 1995

INTRODUCTION

The issue of the transfer of community college students to university level studies has been studied and debated widely in the United States and some parts of Canada. In the Province of Ontario, where community colleges were not established with a mandate to engage in the college-university transfer function — as is the case in community colleges in the United States and in community colleges in British Columbia and Alberta — the college-university transfer issue has received much less attention.

The release of the review of the mandate of the colleges of Ontario, *VISION 2000 - Quality and Opportunity*, and recent policy announcements by the Government of Ontario, however, has stimulated intense debate with respect to the nature and form of community college-university linkages in Ontario's universities.

Most of the recent published literature on college-university linkages has focussed on policy and program issues (Dennison, 1989; Marshall, 1989; McFadyen, 1989; Pitman, 1993; Skolnik, 1989), and coordination issues (Skolnik and Jones, 1993). The published literature contain lacunae, primarily on studies of the academic performance of community college students in a university environment. As stated in *No Dead Ends*, the Report of the Task Force on Advanced Training to the Minister of Education and Training, hereinafter referred to as the Pitman Report, the following generalization is not based on a rigorous analysis but anecdotal evidence.

> Our informal canvass of universities that admit college students and trace their records, certainly does not allow a rigorous analysis; but Grade Point Averages and dropout rates *strongly suggest* that transfer students performed at least as well as, and probably better than, direct entry Grade 13 students. (Pitman, 1993, p. 90) (italics my emphasis).

This statement cannot be validated or refuted as no published "system" or institutional data exist that shows the performance of community college students compared to direct entry Grade 13/OAC students. Institutional studies need to be undertaken and the results shared and compared.

The purpose of this paper is twofold: (1) to describe the various types of community college-university interaction that exists in the Province of Ontario and their growth over the past few years, and (2) to compare the academic performance of a cohort of community college students (**GROUP 1**) admitted to the Faculty of Arts at York University to a cohort of high school students with OAC academic backgrounds (**GROUP 2**) admitted to the Faculty of Arts at York University in the fall of 1987. The research questions to be asked are: do college students tend to enrol in an Ordinary degree program as opposed to an Honours degree program thus inhibiting their potential access to professional and/or graduate school? Do college students perform better academically, take a larger number of courses, take different programs of study, or graduate at differential rates compared to students with OAC backgrounds? The results of this analysis will be significant as York University is the third largest university in Canada and the Faculty of Arts

at York University enrols the largest number of community college transfer students (approximately 350 students in 1992-93) in Ontario.

CONCEPTUAL FRAMEWORK

Community colleges in Ontario and Canada provide postsecondary education and training opportunities for a large number of students. Because community colleges in most provinces were created in the 1960s to co-exist with existing and new universities, little attention was given to the coordination between sectors. In surveying senior government, college and university sector officials, Skolnik and Jones (1993) found that inter-sector coordination is now perceived as an important issue and that inter-sector coordination is most advanced in provinces where there is a strong mandate for articulation between sectors. The Province of Ontario has indicated its desire to develop some type of "articulation" policy between the community college sector and Ontario's universities.

The ability, or lack of ability, of community college students to transfer to university level studies is typically viewed by sociologists as an issue of equal opportunity that has implications for the social stratification of society. Although community colleges in Ontario were originally set up as an *alternative* to university, the present barriers surrounding transfer from community college to university need to be eliminated so that full access to Ontario's postsecondary education system is achieved.

The VISION 2000 Report (VISION 2000, p. 93) and the Pitman Report (1993, p. 85) both argue that as we become increasingly dependent on competing in the global economy, the bi-furcation between college and university study in Ontario cannot continue to exist and bi-lateral agreements must be struck between community colleges and universities in order that students can (depending on their skills, interests, training needs) move freely between sectors with minimum or no academic penalty. This led to the recommendation that "The Minister of Colleges and Universities should endeavour to expand and improve the opportunities for students to move between the college and university sectors, while maintaining the distinctiveness of each sector" (VISION 2000, p. 96).

In examining accessibility to postsecondary education in Canada and a students' decision on whether to attend a community college or university, Ahamed (et. al, 1986) found that "the most important conclusion to emerge from our [sic] analysis is that the probability that a full-time student will choose to attend university rather than college is closely related to socioeconomic background. Thus, full-time students from a higher socioeconomic background are much more likely than those from a lower socioeconomic background to attend university instead of college" (p. 94).

The socioeconomic background of students is closely related to the level of parental education and the study also showed that "parent's education is the most important factor affecting university/college choice of full-time students.... In 1974-75, students where parents had high

education were more likely than those whose parents had low education, to be in university rather than college; the same was the case in 1983-84" (Ahamed, Anisef, and Rowley, p. 87).

Given what we know about the socioeconomic backgrounds of university and community college students, the lack of clearly articulated transfer arrangements between community colleges and universities in Ontario results in unequal representation of all social and economic groups in universities. Improved transfer arrangements will allow for more students from lower socioeconomic backgrounds to attend university. But satisfaction with just "attending" university can be "artificial" access. For example, if college transfer students don't graduate, or graduate with an Ordinary degree as opposed to an Honours degree — which eliminates or reduces the possibility of graduate school and lowers the probability of entrance to a professional school — then access becomes artificial. The research questions outlined above are all geared to determining whether or not we have artificial access. Before acting to implement policy changes with respect to transfer arrangements, however, it would be prudent to determine empirically, how effective transfer students perform in university.

BACKGROUND

The founding statement of the Colleges of Applied Arts and Technology (CAAT's) did not rule out the possibility of transfer from college to university, but did rule out college-oriented "transfer programs" similar to those in existence in the United States. As Stokes (1989) ably illustrates,

> Early debates concerning the transfer issue revolved around opposing sets of values: accessibility versus program integrity, academic or disciplinary based education versus career-centred or practical training, responsive and flexible programming versus traditional university based curricula (p. i).

In the Province of Ontario, there are obstacles, the number of which varies by institution, to admitting community college students who complete all or part of a diploma program, to university level studies. The predominant obstacle for students is the different bases of admission used by community colleges (OSSD and/or 19 years old), compared to universities (OSSD and 6 OAC Credits). This major obstacle has received little attention in the policy studies on college-university linkages and the Pitman Report (1993) does not even mention the different bases of admission to college compared to university as a barrier. For example, "Student transfer with credit is dependent upon several factors — the relationship of college faculty to faculty in other institutions, an informal practice, a formal agreement, the proximity of a sister institution, knowledge of transfer agreements, etc, etc" (Pitman, 1993, p. 36). Another barrier, while not student related, relates to the academic credentials of college teachers (bachelor or master's degree is required to teach in community colleges compared to a doctorate for university professors). Finally, the incredible assortment of community college programs that makes province wide comparisons, of what on the surface may look like a similar program, very difficult (Stokes, 1989, p. 5).

Stokes (1989) has shown that approximately 3.3 percent of Ontario university registrants had spent some time in the college system with about half of these registrants college graduates who proceeded directly to university. In terms of movement between universities and colleges, in 1986-87, "5.2 percent of the 95,000 full-time post-secondary students in the college system had some previous university experience, while a further 1.7 percent were university graduates" (Stokes, 1989, pp. 7-8). Recent data (Pitman, 1993, p. 86) show that the aggregate number of college students registering in Ontario universities has grown from 1,362 students in 1987 to 1,527 students in 1990 while the aggregate number of university students registered in college programs has decreased from 6,579 students in 1987 to 6,188 students in 1990.

COLLEGE-UNIVERSITY LINKAGES

The VISION 2000 report outlined the broad range of college-university models that exist in Ontario and includes:

- advanced standing arrangements in related fields of study;
- general transfer credits for students moving between unrelated fields of study;
- custom degree-completion programs for college graduates at universities;
- joint program offerings by colleges and universities;
- diploma completion arrangements (VISION 2000, p. 97).

The Council of Ontario Universities (COU) recently updated its inventory of college-university linkages for its *Committee on Relationships Between Universities and Colleges of Applied Arts and Technology*. The report shows that only two universities — the University of Guelph and the University of Toronto — did not have a "Joint Committee" of some sort with one or more colleges to pursue cooperation. With the exception of the University of Guelph, Trent University, the University of Waterloo, and Wilfred Laurier University, all Ontario universities have instituted some type of custom degree-completion program for community college students and all Ontario universities have general transfer credits for students moving between unrelated fields of study as well as advanced standing arrangements in related fields of study. Joint program offerings by colleges and universities are becoming increasingly popular. In collaboration with their local community colleges, joint programs presently exist at Carleton University, Guelph University, Lakehead University, Laurentian University, McMaster University, the University of Toronto, Trent University, the University of Windsor and York University.

Marshall (1989, pp. 1-14) shows that the nature and extent of college-university linkages in Ontario universities varies considerably. Most of the college-university linkages were developed in the early to mid 1980s. Pitman (1993) updated Marshall's data (Table 1). The data

shows a significant increase in the number of arrangements between Ontario CAAT's and universities (from 19 to 70).

There has been little enthusiasm, however, for the development of traditional university transfer programs in colleges. The VISION 2000 report states: "It is our conclusion, and that of the majority of stakeholders with whom we consulted, that such traditional transfer programs should not become part of the colleges' program offerings at this time" (VISION 2000, p. 98).

The overall picture that emerges shows that college-university interaction in Ontario universities has improved dramatically in the past five years. There is fruitful collaboration at the institutional level, creative joint programming and sharing of facilities, and an improved regulatory environment (i.e. greater advanced standing credit being granted, etc.) allowing for a larger number of students to make the transition from community college to university.

Table 1. College-University Transfer Arrangements.

		1988 (Marshal Study)	1992 (ACAATO Study)
1.	*Number of Arrangements*		
	a) between Ontario CAATs and universities	19	70
	b) out of province	8	68
	Total	27	138
2.	*Number of CAATs*		
	a) with arrangements with Ont. CAATs and universities	10	19
	b) with arrangements out of province	2	4
	Total	12/19 reporting	23
			1991 (COU Study)
3.	*Number of Universities (including Ryerson)*		
	a) with arrangements	7	12
	b) without arrangements	-	4
	Total	7	16

Source: Task Force on Advanced Training (Pitman, 1993), Table 1, p. 33.

COLLEGE-UNIVERSITY TRANSFER

Are students who enter university from community college just as likely to complete a degree program (ordinary or honours) as a similar cohort of students who enter university directly from high school with OAC backgrounds? Do community college students perform better academically, take different programs of study, take larger number of courses, or graduate at differential rates compared to direct-entry high school students?

At York University, applicants with a community college background are processed for admission in what is known as the "B" pool. This pool contains all applicants (mature students, out-of province students, students who completed high school one year previously, transfer students from other universities, etc.) who do not enter the University directly from high school with six OACs as the basis of admission. Some "B" pool applicants are interviewed and counselled before they make the decision to apply to York, or often solicit further information from an admissions counsellor after making an application. This approach allows for the collection of qualitative data, particularly if the applicant's file is to be forwarded to a Senate subcommittee for an admission decision. The qualitative data garnered from the Office of Admissions at York University suggests that community college students who choose to pursue additional higher (university) education — after completing some or all of a community college diploma program — are usually highly motivated and want to succeed academically. However, what we do not know upon admission is the academic goals of these students. i.e. to complete an Ordinary or Honours Degree; to gain entry into a professional school/program; or to go onto graduate school in a selected discipline, or to just take a few university level courses for enrichment.

THE DATASET

A five year longitudinal data file was created (1987-88 to 1991-92) including courses taken in summer sessions, and contained all students (155) admitted to the Faculty of Arts at York University on the basis of their community college academic background (**GROUP 1**), and all 2,746 high school students admitted to Year 1 directly from Ontario high schools with an OAC background (**GROUP 2**). The 1987-88 starting date was chosen because it would give all students five years to complete matriculation requirements.

Table 2 shows the age and gender of each group. Because GROUP 1 students enter university after completing some portion of a community college program or are community college graduates, they have a higher mean age (22.5 years compared to 18.2 years) than GROUP 2 students. In addition, GROUP 1 students are predominantly female (62.6% female compared to 56% female) compared to GROUP 2 students.

Table 2. Age and Gender by GROUP in Percentages.

		GROUP 1	GROUP 2
Age	18-22 Years	36.8%	97.8%
	23-30 Years	53.5%	2.1%
	GT 30 Years	9.7%	.1%
Mean Age		22.5 Years	18.2 Years
Gender	Female	62.6%	56.0%
	Male	37.4%	44.0%

RESULTS

While no systematic study has been undertaken, amongst Ontario universities, the Faculty of Arts at York University is believed to have the most progressive policy with respect to awarding advanced standing credits to students who were enroled and/or graduated from Ontario community colleges. All community college programs in Ontario have been assessed by York's Registrar's Office and are continually reassessed for their academic content, particularly if new information is received. Block-credit is awarded based on the academic content of the program and the number of program years completed as shown in Table 3. For example, a three year program with "high" academic content is awarded 7 full-course equivalent credits, while a two year program with "medium" academic content is awarded 2.5 full-course equivalents.

Table 3. Advanced Standing Credits Awarded by Program Length and Academic Category.

	High	Medium High	Medium	Medium Low	Low
	A	B	C	D	E
3.0 year program	7	5	3.5	2.5	2
2.5 year program	6	4.5	3	2	1.5
2.0 year program	5	4	2.5	1.5	1
1.5 year program	4	3	2	1	0.5
1.0 year program	3	2	1.5	.5	0

Before any "transfer" credit is awarded, however, basic admission requirements must be met and admission to university is based **on six OAC's or equivalent**. For community college students with little or no OAC background, many, if not most of their college academic credits go toward meeting the university's "basis of admission". This fact alone accounts for the perception that universities award insignificant credit for college study as **advanced standing credits or transfer credit(s) are awarded only after the basis of admission has been met**.

a) Advanced standing.

Approximately half (50%) of GROUP 1 students (78/155) were awarded advanced standing that varied from 0.5 of a full-course equivalent (FCE) to 11.5 full-course equivalents (Table 4). Of those 78 students awarded advanced standing, the majority (65.5%) were awarded 2.0 FCE's or less toward the B.A. after the requirements for the basis of admission had been met. A very small percentage of students (6.5%) were awarded advanced standing greater than 4.0 FCE's. The mean number of credits awarded for advanced standing is 2.2 FCE's.

Table 4. Advanced Standing Granted to Fall 1987-88 Community College Registrants

# of Advanced Standing Course Credits	Percentage of total
1/2 or 1 course credit	27.0%
1.5 or 2 course credits	38.5%
2.5 or 3 course credits	19.2%
3.5 or 4 course credits	7.6%
Greater than 4 course credits	6.5%
Mean number of course credits	2.2 FCE's
N=	78 students

b) Number of courses and grade point average.

The data in Table 5 show the average number of credits and the mean grade point average for each GROUP for academic years 1987-88 to 1991-92.[1] The mean grade point average of 5.4 for GROUP 1 students at the end of Year 1 translates into a letter grade that falls almost mid-way

[1] Six credits equals one full course over two academic terms (September to April).

between a grade of "B" and "C+".[2] There are statistically significant differences in grade point averages in favour of GROUP 1 students (community college students) at the end of FW1987-88 (Year 1) and at the end of FW1990-91 (Year 4). There are statistically significant differences in favour of GROUP 2 students (direct entry high school students) with respect to the mean number of credits taken. For example, in FW1987-88, FW1988-89, FW1989-90, and FW1990-91, GROUP 2 students were enroled, on average, in a greater number of courses than GROUP 1 students. This difference is approximately half a course (0.5 FCE).

Overall, the average number of courses taken by GROUP 1 students is approximately 3.5 FCE's and about 4.0 FCE's for GROUP 2 students in FW1987-88. In FW1988-89 and FW1989-90, GROUP 1 students were averaging slightly over 3.0 FCE's while GROUP 2 students were averaging slightly over 3.5 FCE's.

Thus, college students do as well academically or in some cases better academically (in two of the five years under study) compared to direct entry high school students, but do not proceed towards a degree at the same rate as direct entry high school students, taking approximately half a course (.5 FCE) less per year (except in Year 5).

Table 5. Mean Credits and Grade Point Average by Academic Session (FW 1987-98 to FW 1991-92) and Group.

	GROUP 1		GROUP 2		PROB > |T|
Grade Point Average					
FW1987-88_GPA	5.4		5.0		.01
FW1988-89_GPA	5.2		5.1		n.s.
FW1989-90_GPA	5.7		5.5		n.s.
FW1990-91_GPA	6.0		5.7		.06
FW1991-92_GPA	5.5		5.7		n.s.
Course Credits					
FW1987-88_CRD	21.4	3.56 FCE's	23.6	3.93 FCE's	.001
FW1988-89_CRD	19.8	3.30 FCE's	22.2	3.70 FCE's	.001
FW1989-90_CRD	19.6	3.27 FCE's	22.4	3.73 FCE's	.01
FW1990-91_CRD	18.1	3.02 FCE's	20.2	3.37 FCE's	.05
FW1991-92_CRD	12.7	2.12 FCE's	14.7	2.45 FCE's	n.s.

[2] York University's grading scale does not use (-). Grades are assigned as A+, A, B+, B, C+, C, D+, D, E, F.

between a grade of "B" and "C+".[2] There are statistically significant differences in grade point averages in favour of GROUP 1 students (community college students) at the end of FW1987-88 (Year 1) and at the end of FW1990-91 (Year 4). There are statistically significant differences in favour of GROUP 2 students (direct entry high school students) with respect to the mean number of credits taken. For example, in FW1987-88, FW1988-89, FW1989-90, and FW1990-91, GROUP 2 students were enroled, on average, in a greater number of courses than GROUP 1 students. This difference is approximately half a course (0.5 FCE).

Overall, the average number of courses taken by GROUP 1 students is approximately 3.5 FCE's and about 4.0 FCE's for GROUP 2 students in FW1987-88. In FW1988-89 and FW1989-90, GROUP 1 students were averaging slightly over 3.0 FCE's while GROUP 2 students were averaging slightly over 3.5 FCE's.

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FW1989-90_GPA	5.7		5.5		n.s.
FW1990-91_GPA	6.0		5.7		.06
FW1991-92_GPA	5.5		5.7		n.s.
Course Credits					
FW1987-88_CRD	21.4	3.56 FCE's	23.6	3.93 FCE's	.001
FW1988-89_CRD	19.8	3.30 FCE's	22.2	3.70 FCE's	.001
FW1989-90_CRD	19.6	3.27 FCE's	22.4	3.73 FCE's	.01
FW1990-91_CRD	18.1	3.02 FCE's	20.2	3.37 FCE's	.05
FW1991-92_CRD	12.7	2.12 FCE's	14.7	2.45 FCE's	n.s.

[2] York University's grading scale does not use (-). Grades are assigned as A+, A, B+, B, C+, C, D+, D, E, F.

c) Type of academic program.

Students can enrol a wide variety of programs in the Faculty of Arts. Among these are programs in Physical and Health Education, Psychology, Geography, and Mathematics and Statistics that are typically housed in a School (Physical Education) or a Faculty of Science. Thus, when looking at differences in program choice between GROUP 1 and GROUP 2, the very wide range of programs in the Faculty of Arts can be an obstacle to the analysis.

To facilitate analysis, students were grouped into one of four categories: Group A consisted of empirically based programs such as Mathematics and Statistics, Coordinated Business, Economics, and Computer Science. Group B consisted of social science and social science related programs such as Psychology, Sociology, Anthropology, and Political Science. Group C consisted of humanities based programs such as English, History, Creative Writing, Languages, and Literatures. Group D consisted of programs that did not into Groups A-C but these programs were all out-of-faculty programs that students transferred to after Year 1.

Important differences exist with respect to the choice of academic major (program of study) as shown in Table 6. In Year 1 the majority of GROUP 1 students (57%) were enroled in social science programs while the majority of GROUP 2 students (48%) were enroled in empirically based courses. In Year 2, some GROUP 1 students and a large number of GROUP 2 students changed from empirically based programs to social science based programs. Enrolment in Humanities based programs ranged from a low of 16 percent for GROUP 2 in 1989-90 to a high of 25 percent for GROUP 1 in 1989-90, 1990-91, and 1991-92. Enrolment in other programs ranged from 0 percent to 6 percent, mostly from transfers to other faculties.

d) Inter-faculty transfer.

Once admitted to a specific Faculty at York University, students are free to request a transfer to another Faculty provided that they meet that Faculty's transfer requirements. Table 7 shows the extent of internal mobility for students who enroled initially in the Faculty of Arts and re-enroled in the following year. Thus, at the end of Year 1 (or beginning if Year 2), of those Year 1 students that re-enroled, 85.1 percent of GROUP 1 students and 94.7 percent of GROUP 2 students continued in the Faculty of Arts.[3] Other students transferred to the Faculty of Education, Faculty of Fine Arts, Glendon College, Atkinson College, the Faculty of Administrative Studies, or the Faculty of Pure and Applied Science. The Faculty of Education was the recipient of the largest percentage of GROUP 1 and GROUP 2 students who transferred although these students are not considered to have really "transferred" as they are pursuing their B.A. and B.Ed. in a concurrent program. When you add the Faculty of Education registration

[3] Do not confuse these percentages with the "drop-out" rate. The percentages relate to the percentage of students enroled in FW1989-90 in each Faculty.

data to the Faculty of Arts, it revises the above numbers to 92.1 percent of GROUP 1 students and 98.3 percent of GROUP 2 students.[4]

Table 6. Major by Academic Session and Status.

	GROUP A	GROUP B	GROUP C	GROUP D	N
FW 1987-88					
Group 1	22%	57%	20%	0%	143
Group 2	48%	33%	19%	0%	2369
FW 1988-89					
Group 1	16%	61%	21%	2%	107
Group 2	39%	45%	16%	0%	2212
FW 1989-90					
Group 1	14%	58%	25%	2%	83
Group 2	32%	46%	21%	1%	1954
FW 1990-91					
Group 1	21%	49%	25%	5%	61
Group 2	32%	46%	21%	1%	1621
FW 1991-92					
Group 1	16%	53%	25%	6%	32
Group 2	32%	45%	20%	3%	785

[4] Once should note that the dataset cannot deal with dual faculty registration. Thus, course credit data and grade point data attributed to concurrent students (Arts and Education) is based only on their record in the Faculty of Arts. Thus, the course credit information for GROUP 2 students is slightly under-stated as it would not include the Faculty of Education courses.

Table 7. Faculty by Academic Session and Status in Percentages.

FW 1987-88	AS	AK	AD	ED	FA	GL	SC	LW	GS	N
Group 1	100.0									155
Group 2	100.0									2,746
FW 1988-89										
Group 1	85.1	4.4	0.9	7.0	1.8	0.9	0.0			114
Group 2	94.7	1.1	0.0	3.6	0.4	0.1	0.1			2,264
FW 1989-90										
Group 1	81.8	6.8	2.3	6.8	2.3	0.0	0.0	0.0		88
Group 2	85.1	5.5	4.0	3.7	0.6	0.2	0.2	0.7		2,022
FW 1990-91										
Group 1	72.5	11.6	1.4	11.6	2.9	0.0	0.0	0.0		69
Group 2	78.2	8.5	4.4	6.0	0.8	0.3	0.3	1.5		1,710
FW 1991-92										
Group 1	71.4	17.1	0.0	8.6	0.0	0.0	0.0	0.0	2.9	35
Group 2	61.6	18.9	0.2	11.8	0.9	0.4	0.3	3.9	1.9	950

Legend: AS=Arts, AK=Atkinson College, AD=Administrative Studies, ED=Education, FA=Fine Arts, GL=Glendon College, SC=Pure and Applied Science, LW=Law, GS=Graduate Studies.

e) Attrition and graduation.

Once enroled students proceed toward degree completion (honours or ordinary) at their own pace. Table 8 shows the academic status of both GROUPS by academic session. At the end of Year 1 (start of Year 2), 41 GROUP 1 students (26.5%) and 484 GROUP 2 students (17.6%) had not re-enroled and are presumed to have either stopped-out or dropped-out. Two GROUP 1 students achieved a significant feat and managed to garner enough academic credits to graduate with Ordinary Degrees by the end of the 1989 summer session.

By the end of academic year 1989-90 (Year 3), large numbers of university graduates begin to emerge: 12.9 percent for GROUP 1 and 10.8 percent for GROUP 2 students. Two students graduated with Honours degrees in each GROUP after completing four years of university in three years. The large difference in the drop-out rate at the beginning of Year 2 is exacerbated at the beginning of Year 3: of the original class intake, 41.9 percent (65/155) of GROUP 1 students were not enroled compared to 26.9 percent (739/2746) of GROUP 2 students. At the end of Year 4 (1990-91), approximately 37.4 percent of GROUP 1 students had graduated compared to 42.4 percent of GROUP 2 students. At the end of the five year period (1987-88 to 1991-92), 46.5 percent of GROUP 1 students had graduated compared to 61.3 percent of GROUP 2 students. This is an interesting difference given the similar graduation rate at the end of Year 4.

At this point in the analysis a new question emerged: does the amount of advanced standing received have anything to do with the graduation rate of GROUP 1 students? After all, students who receive advance standing should graduate earlier than other students as they have less courses to complete to complete a degree program. To undertake this analysis GROUP 1 was recoded into two categories: 1) those with advanced standing (over and above what was required to meet the basis of admission); and 2) those without advanced standing. The data in Table 9 show that 64.1 percent of students who received advanced standing graduated compared to 28.6 percent of students who did not receive advanced standing. This makes the graduation rate of GROUP 1 students with advanced standing slightly better than the overall graduation rate for GROUP 2 students (although the N is small). The data also show that the 80 percent (49/63) of all GROUP 2 drop-outs/stop-outs are students who did not receive any advanced standing.

Table 8. Attrition and Graduation by Academic Session and Status, 1987-1992, in Percentages

		GROUP 1		GROUP2		GROUP 1 YES ADVANCED STANDING		GROUP1 NO ADVANCED STANDING	
		#	%	#	%				
FW 1987-88									
Enroled (continuing)		155		2746		78		77	
Enroled and Graduated									
	Grad Honours								
	Grad. Ordinary								
	Grad. Others								
Not Registered									
Grad. Previous Session									
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%
FW 1988-89									
Enroled (continuing)		112	72.26%	2262	82.37%	68	87.18%	44	57.14%
Enroled and Graduated 88-89		2	1.29%	0	0.00%	0	0.00%	2	2.60%
	Grad Honours	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	Grad. Ordinary	2	1.29%	0	0.00%	0	0.00%	2	2.60%
	Grad. Others	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Not Registered		41	26.45%	484	17.63%	10	12.82%	31	40.26%
Grad. Previous Session		0	0.00%	0	0.00%	0	0.00%	0	0.00%
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%
FW 1989-90									
Enroled (continuing)		68	43.87%	1711	62.31%	46	58.97%	22	28.57%
Enroled and Graduated 1989-90		20	12.90%	296	10.78%	16	20.51%	4	5.19%
	Grad Honours	2	1.29%	2	0.07%	2	2.56%	0	0.00%
	Grad. Ordinary	17	10.97%	294	10.71%	13	16.67%	4	5.19%
	Grad. Others	1	0.65%	0	0.00%	1	1.28%	0	0.00%
Not Registered		65	41.94%	739	26.91%	16	20.51%	49	63.64%
Grad. Previous Session		2	1.29%	0	0.00%	0	0.00%	2	2.60%
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%
FW 1990-91									
Enroled (continuing)		32	20.65%	818	29.79%	20	25.64%	12	15.58%
Enroled and Graduated 1990-91		36	23.23%	868	31.61%	24	30.77%	12	15.58%
	Grad Honours	14	9.03%	356	12.96%	10	12.82%	4	5.19%
	Grad. Ordinary	15	9.68%	418	15.22%	7	8.97%	8	10.39%
	Grad. Others	7	4.52%	94	3.42%	7	8.97%	0	0.00%
Not Registered		65	41.94%	764	27.82%	18	23.08%	47	61.04%
Grad. Previous Session		22	14.19%	296	10.78%	16	20.51%	6	7.79%
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%
FW 1991-92									
Enroled (continuing)		20	12.90%	369	13.44%	14	17.95%	6	7.79%
Enroled and Graduated 1991-92		14	9.03%	518	18.86%	10	12.82%	4	5.19%
	Grad Honours	10	6.45%	259	9.43%	7	8.97%	3	3.90%
	Grad. Ordinary	2	1.29%	145	5.28%	1	1.28%	1	1.30%
	Grad. Others	2	1.29%	114	4.15%	2	2.56%	0	0.00%
Not Registered		63	40.65%	695	25.31%	14	17.95%	49	63.64%
Grad. Previous Session		58	37.42%	1164	42.39%	40	51.28%	18	23.38%
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%
Summary 1987-1992									
Enroled (at end of 91-92 session)		20	12.90%	369	13.44%	14	17.95%	6	7.79%
Enroled and Graduated 1987-88 1991-92		72	46.45%	1682	61.25%	50	64.10%	22	28.57%
	Grad Honours	26	16.77%	617	22.47%	19	24.36%	7	9.09%
	Grad. Ordinary	36	23.23%	857	31.21%	21	26.92%	15	19.48%
	Grad. Others	10	6.45%	208	7.57%	10	12.82%	0	0.00%
Not Registered		63	40.65%	695	25.31%	14	17.95%	49	63.64%
Total		155	100.00%	2746	100.00%	78	100.00%	77	100.00%

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Table 9. Attrition and Graduation Rates of Community College Students by Amount of Advanced Standing Awarded, 1987-1992.

	Awarded Advanced Standing	%	Not Awarded Advanced Standing	%
Enroled (at end of 91-92 session)	14	17.9%	6	7.8%
Enroled and Graduated 1987-88 to 1991-92	50	64.1%	22	28.6%
Graduated with Honours Degree	19	24.4%	7	9.1%
Graduated with Ordinary Degree	21	26.9%	15	19.5%
Graduated with Other Degree	10	12.8%	0	
Not Registered	14	17.9%	49	63.6%
N=	78	100%	77	100%

In summary, community college students (GROUP 1) are more likely to be non-completers (40.7% compared to 25.3%), and are less likely to graduate (46.5% compared to 61.3%) compared to direct entry high school students (GROUP 2). In addition, community college students awarded advanced standing are more likely to graduate than those not awarded advanced standing. There appears to be very little difference in the type of degree earned by community college students compared to direct entry high school students. For example, of those GROUP 1 students who graduated, 50 percent (36/72) graduated with an Ordinary Degree and 36.1 percent (26/72) graduated with an Honours Degree compared to 51 percent (857/1,682) and 36.7 percent (617/1,682) of GROUP 2 students respectively.

DISCUSSION/CONCLUSIONS

You will recall that the purpose of this paper was to describe the various types of and growth in community college-university interaction in the Province of Ontario and to compare the academic performance of a cohort of community college students admitted to the Faculty of Arts at York University to a cohort of high school students with OAC academic backgrounds admitted to the Faculty of Arts at York University from the fall of 1987 until the summer of 1992.

As stated previously, the level of college-university interaction in Ontario universities has improved dramatically in the past five years and could now be characterized as robust. Fruitful collaboration exists at the institutional level, new arrangements for creative joint programming and sharing of facilities continue to emerge, and an improved regulatory environment in most universities (i.e. greater advanced standing credit being granted) is creating opportunities for a larger number of students to make the transition from community college to university.

The five years of longitudinal data presented is both encouraging and discouraging. It is encouraging to learn that college students seem to do as well or in some cases better academically (in two of the five years studied) compared to direct entry high school students, but do not proceed towards degree completion at the same rate as direct entry high school students, taking approximately half a course less per year (except in Year 5). Community college students who were able to persist and graduate did not disproportionately take Ordinary Degrees as opposed to Honours Degrees, thus allowing themselves the opportunity to apply to graduate level or professional level study.

The discouraging data show that students admitted to the Faculty of Arts at York University with community college backgrounds graduate at a much lower rate (46.5 percent versus 61.3 percent) compared to students with OAC backgrounds. Conversely, this means that the drop-out or stop-out rate is approximately 40.7 percent for college students compared to 25.3 percent for direct entry high school students, with the residual still enroled at the end of the five year period. In addition, community college students who receive advanced standing are more likely to graduate compared to community college students who have not received advanced standing. It would be wrong to conclude, however, that all community college students should consequently be awarded advanced standing regardless of their academic history. Community college students awarded advanced standing are more likely to have partial or full OAC backgrounds as well as partial or full completion of a one, two or three year college program. One implication of this finding may be that universities should prohibit community college students from applying until they have completed 2 years of a college program, unless they have a partial of full OAC background that will allow some advanced standing to be granted over and above what is required to satisfy the basis of admission. However, further research and additional data analyses (a different longitudinal stream, other universities) should be undertaken to determine whether this finding is reliable.

Further research and analysis is also warranted to determine the causes of this difference as traditional models of student attrition, such as Tinto (1987) are based on the characteristics of direct entry high school students. One can speculate, however that the large difference in graduation rates between GROUP 1 and GROUP 2 is a result of several factors. One factor may be "cultural" in that the community college culture attaches very little stigma to dropping or stopping out. Dropout rates of between 30-45 percent are common in many community college programs. Another factor may be that a college student may have a very practical reason for enroling in a university degree program — their objective may simply be to complete a few academic courses to round out their education. If this is their objective then the fact that they did not graduate is irrelevant. A further factor may be the higher tuition and cost structure of universities compared to community colleges. Community college tuition is less than half the tuition of a full-course load at a university and this amount does not include books and supplies. The data in Table 5 showed that college students took, on average, one half a course less than direct entry high school students. College students may be proceeding at a slower pace because of much tighter financial circumstances. As Ahamed (et. al, 1986) have shown, college students disproportionately come from the lower socioeconomic strata of society. Finally, the difference

in the graduation rate of college students compared to direct entry high school students could be a combination of the above factors and/or other unknown factors.

From a public policy perspective, future research should concentrate on comparing the stop-outs/drop-outs from GROUPS 1 and 2 to provide some qualitative context and additional empirical data on the different reasons for dropping-out/stopping-out. A good starting point for GROUP 1 students is the finding that college students awarded advanced standing have a greater chance of persisting and graduating. If a greater proportion of college students leave University for "socio-cultural" reasons then universities need to more closely monitor, and implement early warning programs, for students with college backgrounds.

In conclusion, the data show that those college students who do not dropout do as well or better academically than direct entry high school students, but college students are proceeding toward completion of their degree program at a slower pace on average (.5 FCE less). College students that are able to persist and complete their degree program requirements, graduate with the same proportion of Honours and Ordinary Degrees as direct entry high school students. And college students with advanced standing (over and above the minimum required for the basis of admission) are more likely to graduate compared to college students not awarded advanced standing.

References Cited

1. Bill Ahamed, Paul Anisef, Robin Rowley., (1986) *A Report on Access to Postsecondary Education in Canada*, Secretary of State Canada - Education Support Branch, March.

2. Council of Ontario Universities, (1991) *Committee on Relationships Between Universities and Colleges of Applied Arts and Technology* Questionnaire on Cooperative Activities, November, Mimeograph.

3. John Dennison (1989). "College to University: An Analysis of Transfer Credit Policy and Practice" in *Colleges and the Educational Spectrum: Background Papers*. VISION 2000. A Review of the Mandate of the Colleges of Applied Arts and Technology, Toronto, Ontario Council of Regents, October, pp. 1-26

4. Robert Alexander Marshall (1989). "College-University Transfer Arrangements Existing in Ontario" in *Colleges and the Educational Spectrum: Background Papers*. VISION 2000. A Review of the Mandate of the Colleges of Applied Arts and Technology, Toronto, Ontario Council of Regents, October, pp. 1-14.

5. Craig McFadyen (1989). "Consultations on College-University Linkages" in *Colleges and the Educational Spectrum: Background Papers*. VISION 2000. A Review of the Mandate of the Colleges of Applied Arts and Technology, Toronto, Ontario Council of Regents, October, pp. 1-13.

6. Ministry of Colleges and Universities (1990). *VISION 2000: Quality and Opportunity. The Final Report of VISION 2000, A Review of the Mandate*. Toronto, Ontario Ministry of Colleges and Universities.

7. Walter Pitman, Chair. (1993) *No Dead Ends*. Report of the Task Force on Advanced Training to the Minister of Education and Training. Toronto, April.

8. Michael Skolnik (1989). "How Ontario's College System Might Respond to Pressures for the Provision of More Advanced Training" in *Colleges and the Educational Spectrum: Background Papers*. VISION 2000. A Review of the Mandate of the Colleges of Applied Arts and Technology, Toronto, Ontario Council of Regents, October, pp. 1-16.

9. Michael L. Skolnik and Glen A. Jones (1993). "Arrangements for Coordination Between University and College Sectors in Canadian Provinces" *The Canadian Journal of Higher Education*, Vol XXIII-1, pp. 56-73.

10. Peter Stokes (1989). "College-Transfer Revisited: A Working Paper" in *Colleges and the Educational Spectrum: Background Papers*. VISION 2000. A Review of the Mandate of the Colleges of Applied Arts and Technology, Toronto, Ontario Council of Regents, October, pp. 1-17.

11. Vincent Tinto (1987). *Leaving College: Rethinking the Causes and Cures of Student Attrition*. Chicago: University of Chicago Press

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